ATTACHMENT D:

KENTUCKY DIVISION FOR AIR QUALITY=S RESPONSES TO COMMENTS RECEIVED FROM THE U.S. ENVIRONMENTAL PROTECTION AGENCY FOR CINCINNATI GAS & ELECTRIC EAST BEND STATION TITLE V PERMIT

August 12, 1997 Comments and Responses:

1. Comment 1 regarding Page 1, Section A: This section should be revised to include the fact that a Source may begin construction of a minor modification after submitting a permit application, but before the issuance of a Title V permit.

Response to comment 1 regarding Page 1, Section A: The Kentucky Division for Air Quality (Division) believes that this section A is appropriately worded by referencing 401 KAR 50:035. The Division has referred to the particular regulation where the exceptions and minor modification procedures are mentioned. The Division did not reference the specific sections of the regulation since the sections could change in a future version of the regulation.

2. Comment 2 regarding Page 2, Section B: The electrostatic precipitator and scrubber should be included in the initial description of the emission unit.

Response to comment 2 regarding Page 2, Section B: The Division will list the electrostatic precipitator and scrubber in the initial description of the emission unit. However, it should be noted that the permittee may use the scrubber or burn low sulfur compliance coal for compliance with the sulfur dioxide emission standard.

3. Comment 3: No construction dates were given in the permit or background information, so applicability with NSPS could not be determined.

Response to Comment 3: The Division concurs and will provide the construction dates. The Unit 2 commenced construction by 1976, before applicability date of Subparts Da, or Db. Also the unit is larger than 100 MMBtu/hr so that Subpart Dc does not apply.

4. Comment 4 regarding Page 3, Section B, Subsection 2 No.4: This condition states the method of calculating the mass emission rate for particulate matter. The method utilizes accepted fuel data. Is this fuel data from the required weekly testing for ash content, or is it the ash content provided by the supplier? Also, the exact formula for determining the particulate matter emission rate should be written into the permit. EPA would like to review these formulas before they are included in the final permit. Included in this submittal, KYDAQ should explain how the control efficiencies were determined. Lastly, the ash and heating value sampling and testing must be performed on a daily basis.

4. Continued. Response to Comment 4 regarding page 3, Section B, Subsection 2 No. 4:

See chronology of responses to UIEK comments.

5. Comment 5 regarding Page 3, Section B, Subsection 3b: Testing requirements are cited in this section. The wording of this section is not completely clear. Is testing required, such that the timing of the required testing is Aupon approval by the Division@, or is testing not required except Aupon approval by the Division@?

Response to comment 5 regarding Page 3, Section B, Subsection 3b: The Division has taken out wording AUpon approval by the Division@ to make the condition more understandable. That wording was included in the permit so that the permittee would submit a protocol for any stack test before actually conducting the test. This requirement has been put in the permit by adding the following general condition: Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1.(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the Division=s Frankfort Central Office.
Pursuant to 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test.

6. Comment 6 regarding Page 3, Section B, Subsection 3b: Particulate matter testing should be performed annually.

Response to comment 6 regarding Page 3, Section B, Subsection 3b:

See responses to UIEK comments.

7. Comment 7 regarding page 7: Not enough information is given to determine if the coal handling facility should be subject to the NSPS Subpart Y.

Response to Comment 7 regarding page 7: This point 03 (03) includes barge unloading/receiving operations, conveyor E, carry all bin including load-in and load-out, and open stockpile operations. Barge unloading operations, conveyor E, carry all bin including load-in and load-out, and the open stockpile do not meet the definition of an affected facility under Subpart Y NSPS. These points are not and do not include: thermal dryers, or pneumatic cleaning equipment, or coal processing and conveying equipment (these points do not convey coal or remove coal from machinery to reduce the size of the coal nor does this equipment separate coal from refuse). This operation does include an open stockpile which does not meet the definition of a coal storage system under Subpart Y because this definition excludes open storage piles. The carry all bin including load-in and load-out, and conveyor E are transfer equipment which are used to move coal, according to company documentation, diverting coal before the crusher and routing to the open stockpile, and as the company documents do not move coal to or from the crusher; the carry all bin including load-in and load-out, and conveyor E also do not transfer coal for shipment, therefore, because this equipment moves coal and does not transfer coal for shipment, it does not meet the definition of an affected facility under Subpart Y. These units do not transfer and/or load coal for shipment. Thus, 40 CFR 60 Subpart Y does not apply to barge unloading/receiving, conveyor E, carry all bin including load-in and load-out, or stockpile operations.

8. Comment 8 regarding page 16, No. 2(1): The formula used to determine compliance should be stated in the permit, and the control efficiency used should be justified.

Response to comment 8 regarding page 16, No. 2(1): The formula to be used for compliance demonstration is: material throughput in tons per hour x 0.012 pounds per ton x (1-0.91) (emission factor determined based on company documentation, particularly 7007W). The control efficiency of 91 percent is justified by calculation given applicant design parameters from 7007N forms with use of Semrau summarized equations and Semrau alpha and beta data. Reference page 7-23 of Control of Particulate Emissions University of Cincinnati Environmental Training Institute Manual and the DEP Form 7007N. The EPA should note that this emissions unit is a minimal source of particulate emissions (PM). A statement including this formula has been added to the permit.

9. Comment 9 regarding Page 33, No. 16: This condition must be deleted. A policy to use enforcement discretion should not be place in the permit, making it federally enforceable.

Response to comment 9 regarding Page 33, No. 16: The Division acknowledges the comment and will delete general condition 16.

10. Comment 10 regarding Page 28, No. D(1): Should this condition include a statement about credible evidence?

Response to comment 10 regarding Page 28, No. D(1): The Division acknowledges the comment but does not agree that this condition should include a statement about credible evidence. At the issuance of this permit, Kentucky has not adopted the credible evidence rule.

11. Comment 11 regarding Page 27, Insignificant activities: Insignificant activities 19 and 20 relate to indirect heat exchanger and the control equipment. These units are major sources during normal operation, but they are insignificant activities during maintenance and repair. Is this dual classification acceptable?

Response to comment 11 regarding Page 27, Insignificant activities: The Division proposes to reword activity 19 to state: Maintenance activities associated with the repair of electrostatic precipitators, and scrubbers, and replacement of bags in baghouses, and replacement of filters, and repair other filtration equipment. . .. Also, regarding activity 20, the Division proposes the following wording: maintenance activities associated with heat exchanger cleaning and repair. The Division believes the intent of these activities is to cover routine maintenance and is thus not a dual classification.

ATTACHMENT D:

KENTUCKY DIVISION FOR AIR QUALITY=S RESPONSES TO PUBLIC COMMENTS RECEIVED FROM CINERGY ON THE CINCINNATI GAS AND ELECTRIC EAST BEND STATION DRAFT TITLE V PERMIT
Letter Dated August 22, 1997

1. **Comment:** The reference to 40 CFR 76, the Acid Rain nitrogen oxides (N0x) regulations, should be deleted from page 2, Subsection 2(d) of the permit. The N0x standard listed in this section is to implement a Reasonably Available Control Technology (RACT) limit for Unit 2 because Northern Kentucky is an ozone nonattainment area. This limit has nothing to do with the acid rain program.

1. **Response:** The Division will remove the reference to 40 CFR 76.

2. **Comment:** Subsection 2, paragraph 3 on page 3 of the East Bend permit states: AContinuous Opacity Monitoring (COM) data shall be used as an indicator to demonstrate continuous compliance with the allowable particulate emission standard@. Cinergy believes that there is very little correlation between opacity and the Unit 2 particulate emission rate. As discussed with you and other Kentucky Utilities on August 20, 1997 we agree that this paragraph should be deleted from the permit.

2. **Response:** See chronology of responses to UIEK comments.

3. **Comment:** Page 6, Subsection 7(b) requires keeping records regarding the operation of the low nitrogen oxides burners and having these records available for inspection. The low nitrogen oxides burners are an integral part of the boiler. There are no specific records to be kept on the operation of the burners. Cinergy requests that this requirement be deleted from this section.

3. **Response:** The Division acknowledges the comment and concurs. The reference to keeping records on the low nitrogen oxides burners has been deleted because the burners are integral parts of the boiler.

4. **Comment:** Cinergy believes that NSPS Subpart Y is not applicable to some of the coal handling equipment listed on page 9 of the East Bend permit. NSPS Subpart Y does not apply to Conveyor E, the Carry All Bin Load-In (Emission Point 03-04) and the Carry All Bin Load-Out (Emission Point 03-05). Subpart Y does not apply to this equipment because it does not convey coal to or remove it from the coal crushers covered by Subpart Y. All of the equipment listed on page 9, except for the three pieces of equipment listed above, are used to move coal to the Crusher House or the crushed coal away from the crusher house. Conveyor E, the carry all bin load-in and the carry all bin load-out are used to move coal to the coal storage pile only. A process flow diagram is enclosed for your reference.

The coal handling process flow diagram may be causing some confusion because it labels the Carry All Bin as the ACarry All Storage Bin@. The carry all bin does not provide permanent coal storage. It holds coal for periods of no longer than 8-10 hours. Its purpose is to allow the coal unloader and coal conveyors to continue operating while the carry alls travel to the storage pile to deposit their load of coal.

Conveyor E, the carry all bin load-in and carry all bin load-out should be included with the non-NSPS coal handling on page 7.
Cinergy refers to Mr. Jewel Harper=s October 29, 1990 letter to Mr. Hisham Saaid.

4. **Response:** The Division acknowledges the comment and believes that Conveyor E, and the Carry All Bin including Load-In (Emission Point 03-04) and the Carry All Bin Load-Out (Emission Point 03-05) should be included under the non-NSPS emissions point. Therefore, the Division will include Conveyor E, the Carry All Bin including Load-In (Emission Point 03-04) and the Carry All Bin Load-Out (Emission Point 03-05), as subject to 401 KAR 63:010 instead of Subpart Y because these divert coal from the crushers and do not convey coal to or from processing machinery to reduce the size of coal. As Cinergy further explains to the Division, the Carry All Bin with Load-In and Load-Out are an extension of Conveyor E which moves raw coal to the storage pile without being crushed. Cinergy explains that the Carry All Bin does not store the coal that is being moved to the storage pile and is just the equipment between Conveyor E and the storage pile. Based on Cinergy explanations, the Division now interprets that: (1) Conveyor E, and Carry All Bin including Load-In and Load-Out do not convey coal or remove coal from machinery to reduce the size of coal nor do these separate coal from refuse; (2) Conveyor E, and Carry All Bin including Load-In and Load-Out are transfer equipment used to move coal, diverting coal before the crusher and routing to the open stockpile, and does not move coal to or from the crusher, and (3) Conveyor E, and Carry All Bin including Load-In and Load-Out do not transfer coal for shipment. Therefore, the Conveyor E, and Carry All Bin including Load-In and Load-Out do not meet the definition of an affected facility under Subpart Y.

5. **Comment:** Cinergy has discovered an error in the calculation of the Unit 2 cooling tower particulate emissions. The revised calculations show that the cooling tower qualifies as an Insignificant Activity. The revised calculation and appropriate insignificant activity forms have been sent to you under separate cover letter.

5. **Response:** The Division acknowledges the comment and concurs. The Division has added the cooling tower to the insignificant activity list.

6. **Comment:** This comment is in reference to USEPA=s Comment No. 2, regarding including a descriptive reference to the electrostatic precipitator and scrubber. This comment refers to page 2, Section B of the East Bend permit. Cinergy believes the existing description is adequate and it is not necessary to include references to the electrostatic precipitator and the scrubber. If Cinergy decided to burn compliance coal in Unit 2 to meet the sulfur dioxide limit, then it would not be necessary to operate the scrubber. Under these circumstances, the description would imply that a scrubber is being utilized when it is not.

6. **Response:** The Division acknowledges the comment. Please note that Condition 7(a) states that the controls are to be operated as necessary to meet compliance. In response to EPA=s comments the Division has included the control equipment under the heading ADescription@, following the identification of the emission point, which identifies characteristics of Unit 2 and the control equipment. However, the Division concurs that if Cinergy decided to burn compliance coal in Unit 2 and still met the sulfur dioxide limit, then it would not be necessary to operate the scrubber; thus, the information is included as a description.

7. **Comment:** This comment is in reference to USEPA=s Comment No. 3 regarding including equipment construction dates in the various sections of the permit so NSPS applicability could be determined. KDAQ should include the construction dates if it will make the permit easier to understand. USEPA=s concerns could also be alleviated by providing them with a copy of the permit application.

7. **Response:** The Division has provided construction commencement dates provided by Cinergy in the proposed/final Title V permit for the East Bend Station.

8. **Comment:** This comment is in reference to USEPA=s Comment No. 4 regarding demonstrating compliance with the Unit 2 particulate emission standard. This comment refers to page 3, Subsection 2, paragraph 4 of the East Bend permit. Calculating particulate emissions is equivalent to implementing a Compliance Assurance Monitoring (CAM) program. USEPA has not finalized the CAM regulations at this time. Cinergy requests dropping all references to calculating emissions from this paragraph and limiting the compliance method to stack testing until the CAM regulations are final. This paragraph should be revised to ACompliance with the particulate allowable standard shall be demonstrated by direct measurement in accordance with 401 KAR 50:045.@

8. **Response:** See chronology of responses to UIEK comments.

9. **Comment:** This comment is in reference to USEPA=s Comment No. 5 regarding the Unit 2 particulate testing. This can be found on page 3 in Section 3, ATesting Requirements@ of the East Bend permit. Cinergy believes the wording in this section is causing some confusion. We suggest replacing the phrase AUpon approval by the Division@ with the following sentence: AThe Division shall approve the date and methodology for all performance testing@.

9. **Response:** The Division acknowledges the comment and has decided to remove the phrase Aupon approval by the Division@ and add General Condition G(a)20 which reads:

A20. Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the Division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test.@

10. **Comment:** This comment is in reference to USEPA=s Comment No. 6, regarding the Unit 2 particulate testing frequency. This can be found on page 3 in Section 3, ATesting Requirements@, of the East Bend permit. Cinergy believes annual particulate emission testing would be an excessive requirement. Past stack tests have shown East Bend Unit 2 to have a low particulate emission rate. Cinergy believes that two particulate emission tests during the permit period should be acceptable. KDAQ has the authority to require additional emission tests at any time that you feel a source is not in compliance.

10. **Response:** See responses to UIEK comments.

11. **Comment:** This comment is in reference to USEPA=s Comment No. 7 regarding the applicability of NSPS Subpart Y for coal handling facilities. These sections can be found on pages 7 and 9 of the East Bend permit. It appears that USEPA is not aware that KDAQ divided the East Bend coal handling facility into two parts in the permit. One part (page 9) includes areas of the coal handling system where Subpart Y applies. The second part of the permit (page 7) includes the areas subject to the fugitive dust regulations (where Subpart Y does not apply). A short statement on pages 7 and 9 directing the reader to the other part of the permit may alleviate this confusion.

11. **Response:** The Division acknowledges the comment and is indicating to EPA that the equipment subject to 401 KAR 63:010 (Emission point 03, Unit 03 - barge unloader, stockpile, and conveyor E, and carry all bin including load-in and load-out) does not meet the definition of an affected facility under Subpart Y.

12. **Comment:** This comment is in reference to USEPA=s Comment No. 8 regarding the Flue Gas Desulfurization Sludge Fixing Plant particulate compliance determination calculation. This can be found on page 16, Subsection 2, ACompliance Determination Method@, paragraph 1 of the East Bend permit.

Cinergy suggests that the formula to be used for the emission calculation is the same as the formula used for the calculations that are included in the permit application. The formula is as follows:

PF(1-E) = pounds of particulate emission.

Where: P = Tons of material processed

F = Emission Factor, where F is:

0.057 lbs of emissions/ton of fly ash handled

0.0021 lbs of emissions/ton of lime handled

E = Control Efficiency, where E is:

0.99 for total enclosure of transfer points

0.99 for wet scrubber

12. **Response:** The Division acknowledges the comment but has developed a simpler formula to use for pounds per hour particulate emissions calculation: throughput material in tons per hour x 0.012 pounds per ton x (1-0.91). The Division received verbal agreement from Cinergy that this formula would be acceptable. The 0.012 lb/ton emission factor is directly calculated based on emissions shown on 7007W. The 0.91 represents the 91 percent documented efficiency from form 7007N, which was substantiated by calculations and assumptions with specifications
from form 7007N.

13. **Comment:** This comment is in reference to USEPA=s Comment No. 9 regarding removing a permit condition based on USEPA Region IV=s enforcement policy. This can be found in Section G, paragraph 16 on page 33 of the East Bend permit. Region IV=s CEM Enforcement Policy (CEP) established target criteria and follow-up actions for the state agencies for reviewing quarterly excess emissions reports. The enforcement policy establishes the criteria and follow-up actions based on the number of excess emission periods and the number of operating hours. An acceptable report is one where the number of excess emissions and the amount of monitor downtime is less than 2 percent of the unit=s operating hours. This permit condition is important to Cinergy if compliance is to be based on the opacity monitor. Excess opacity emissions will inevitably occur that cannot be attributed to start-up, shutdown, or malfunction. Cinergy acknowledges that KDAQ has the discretion to initiate enforcement action for any level of excess emissions, however, there must be a mechanism for excusing a certain level of excess emissions in order to certify annual compliance with the permit requirements. Cinergy believes that this condition should not be deleted from the East Bend permit.

13. Continued: **Response:** The comment has been noted, but the U.S. EPA has informed the Division that the incorporation of language as such should not be included within the permit until such a time as when the language is rule, instead of policy, either by U.S. EPA or the Commonwealth of Kentucky.

14. **Comment:** This comment is in reference to USEPA=s Comment No. 11 regarding insignificant activities. This can be found on page 27, paragraphs 19 and 20 in the permit.

USEPA questions how Unit 2 can be a significant source during normal operation and an insignificant source during maintenance and repair. The two paragraphs should be reworded to indicate that the maintenance activities are the source of the emissions in the insignificant activities section of the permit. The boiler and control equipment are not the source of emissions. Cinergy suggests using the following wording:
A19. Maintenance activities associated with the replacement and repair of the electrostatic precipitator. . .@
A20. Maintenance activities associated with heat exchanger cleaning and repair.@

14. **Response:** The Division acknowledges the comment and agrees that the maintenance activity is the source of emissions, not the boiler combustion and control equipment. Thus, the Division has reworded these insignificant activities as follows:
A19. Maintenance activities associated with the repair of electrostatic precipitators, and scrubbers, and replacement of bags in baghouses, and replacement of filters, and repair of other filtration equipment, to which Regulation 401 KAR 63:010 applies.

20. Maintenance activities associated with heat exchanger cleaning and repair.@